

Remarks

Specification and Drawings

Applicant has amended the specification and drawings to correct typographical errors. Support for these amendments can be found throughout the originally filed specification and drawings. No new matter has been added.

As there are numerous amendments to the specification, the Applicant will submit an amended specification if and when requested by the Examiner. Furthermore, the Applicant will file formal drawings replacing all the previously filed drawings once all the claims are allowed.

§ 103(a) rejection

The Examiner rejected claims 1 to 3, 6 and 12 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,233,635 ("Son") in view of U.S. No. 5,422,915 ("Byers et al."). Specifically, the Examiner stated:

But Son does not disclose the plurality of elements powered by the first power domain and second power domain. However Byers et al. disclose the plurality of circuits powered by the first power domain and second power domain (see figure 5, col. 10, line 35 through col. 11, line 18). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Byers et al. within the system of Son because it would provide security against the power loss and ensure the data integrity.

January 13, 2004 Office Action, p. 3 (emphasis added). Applicant respectfully traverses because Applicant finds no motivation to combine Son and Byers et al.

Son recognizes that only a limited number of I2C slave devices can be connected to an I2C master on a single I2C bus. Son, col. 1, lines 39 to 52. Son solves this problem by using an I2C bus multiplexer 42 that connects a master device 40 to one of multiple I2C buses each having multiple slave devices. Son, col. 4, lines 7 to 26. However, Son does not recognize or suggest any reasons why it would be desirable to locate these slave devices in multiple power domains.

Byers et al. recognizes that redundant circuit loads powered by separate power domains should be clocked by separate sources in each power domain. Byers et al., col. 1, lines 45 to 62.

However, the clock sources need to be synchronized so that each circuit load is clocked at the same time. Byers et al., col. 1, line 62 to col. 2, line 5. Thus, Byers et al. solves this by providing a synchronizer and distribution circuitry for each power domain (e.g., circuit 64 in power domain A) that is coupled to a clock source in the same power domain (e.g., clock source A) and to clock sources in the other power domains (e.g., clock sources B to n in power domains B to n). See Fig. 1. However, Byers et al. does not recognize or suggest any reasons why it would be desirable to apply multiple power domains to slave devices on I2C buses.

Although the Examiner finds that combining Son and Byers et al. "would provide security against the power loss and ensure data integrity," this is merely the result of the combination and not a motivation for the combination. Applicant postulates that the Examiner may have conceived such a motivation only after reading the present application, which makes this motivation a product of hindsight not available to those only in possession of Son and Byers et al. There is simply no recognition or suggestion in Son or Byers et al. that security against power loss and data integrity are desirable attributes for the multilevel I2C bus system described in Son. Often multiple power domains are not desirable because of the added costs and complexity they add to a system.

Furthermore, even assuming there is motivation from Byers et al. and Son, it is only with hindsight in view of the present application did the Examiner know to group the slave devices on each I2C bus into the same power domain. One could have easily have grouped the slave devices on each I2C bus into different power domains without recognizing the benefits taught by the present application, which is that the failure of one power domain could bring down an entire I2C bus that runs across different power domains so that the remaining operational devices cannot communicate over the same bus. This benefit is not recognized or suggested by either Son or Byers et al.

Claims 2 and 3 depend from claim 1 and are patentable over Son in view of Byers et al. for at least the same reasons that claim 1 is patentable.

Applicant has previously amended claim 6 to depend from claim 4, which the Examiner indicated as allowable subject matter. Therefore claim 6 is patentable for at least the same reasons as claim 4.

Claim 12 is patentable over Son in view of Byers et al. for at least the same reasons that claim 1 is patentable.

Allowable Subject Matters

Applicant thanks the Examiner for indicating that claims 4, 7, 9 to 11, and 13 to 15 are allowable.

In summary, claims 1 to 4, 6, 7, and 9 to 15 were pending in the above-identified application when last examined. For the above reasons, Applicant respectfully requests the Examiner to withdraw the rejections and objections and allow claims 1 to 4, 6, 7, and 9 to 15. Should the Examiner have any questions, please call the undersigned at (408) 382-0480.

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Respectfully submitted,



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